

SK



**UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

[Handwritten signature]

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
-----------------	-------------	----------------------	---------------------

09/031,108 02/26/98 BARANDA P OT-4190

┌

PM82/0928

EXAMINER

RANDY G HENLEY
OTIS ELEVATOR COMPANY
INTELLECTUAL PROPERTY DEPARTMENT
10 FARM SPRINGS
FARMINGTON CT 06032

TRAN, T	
ART UNIT	PAPER NUMBER

3652

DATE MAILED:

09/28/99

10

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/031,108

Applicant(s)
Baranda et al.

Examiner
Thuy V. Tran

Group Art Unit
3652



☒ Responsive to communication(s) filed on Jul 23, 1999

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 2-14, 16-22, and 66-75 is/are pending in the application.

Of the above, claim(s) 71-75 is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 2-14, 16-22, and 66-70 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ .received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 6, 7 & 9

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Art Unit: 3652

DETAILED ACTION

Election/Restriction

1. Claims 71-75 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b) as being drawn to a non-elected Invention. Election was made **without** traverse in Paper No. 8.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 11, 12, 17 and 66-70 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It appears in the preamble that the applicants intend to claim a “tension member” as the subcombination of an “elevator system” while in the body of the claims there are positive recital of structures indicating that a combination of a tension member and an elevator system are being claimed, e.g., in claim 11, applicants recite the limitation “the engagement surface of a tension member is contoured *to complement* the non-linear engagement surface of the sheave”; in claim 12, “the engagement surface of the coating layer is shaped by the outer surface of the ropes *to enhance* the traction between the traction sheave and the tension member”; in claim 17, “the

Art Unit: 3652

engagement surface of the coating layer is shaped by the outer surface of the ropes to guide the tension member during engagement with the sheave”, and in claims 66-70, “an engagement surface that *transfers* force from the traction sheave to the tension member as a result of traction between the engagement surface and the traction to thereby move the car”. It is unclear if the applicants’ intent is to claim merely the tension member for providing lifting force or the tension member in combination with an elevator system. These claims will be examined as subcombination according to applicants’ election in paper number 8.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 2-11, 13, 14, 16, 18-20 and 66-70 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Coleman et al. 4,445,593.

Coleman et al. ‘593 disclose a tension member 1, Fig. 7, having an aspect ratio (w/t) of greater than 1(See Figures 4 and 7, column 3, lines 8-39) and including a plurality of non-metallic stranded ropes 8 encased within a common layer of elastomer coating 10.

6. Claims 2, 5-11, 13, 14, 16, 18-20, 66, and 68-70 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Puzik 5,593,366. (See Figures 1, 5-7).

Art Unit: 3652

7., Claims 2, 7, 11 and 16 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by either U.K. 1,401,197 or Pearson 1,164,115 or SU 1216120 A or Meurer 5,149,057.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 3 and 4 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Puzik 5,593,366 in view of Coleman et al 4,445,593.

Puzik '366 discloses all the claimed limitations (see Figs. 1, 5-7) except for the tension member and the ropes are formed from strands of non metallic material. Coleman et al. '593 disclose a tension member 1 having a non-metallic material sheath 10, which encases a plurality of nonmetallic ropes 9. It would have been obvious to use non-metallic material to form the strands of Puzik's tension member as taught and suggested by Coleman et al '593, since non-metallic material was an art-recognized material used to formed strands of Puzik's tension member.

10. Claims 12 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Greening 2,017,149 in view of Coleman et al. 4,445,593.

Greening '149 discloses a plurality of ropes, Figs. 1 & 2, wherein each ropes is conformed around a groove 4 of a traction sheave. Greening '149 discloses all the claimed limitations except

Art Unit: 3652

for the ropes are not encased by a layer of coating. Coleman et al. '593 disclose a plurality of ropes 9, Fig. 7, are encased by a layer of sheath 10 to improve the tensile stress on the cables. It would have been obvious to one having ordinary skill in the art at the time the invention was made to apply a coating layer to the ropes of Greening as taught and suggested by Coleman et al in order to improve the tensile stress for the Greening's ropes.

11. Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Coleman et al 4,445,593 or Puzik 5,593,366.

Both Coleman et al and Puzik separately discloses all the claimed limitations except for the individual ropes are flat in cross section or the aspect ratio (w/t) of the individual ropes is greater than one. It would have been obvious matter of design choice to modify either the Coleman et al. '593 reference or the Puzik reference by having rectangular shaped ropes, since applicants have not disclosed that having a rectangular in cross section solves any stated problem or is for any particular purpose and it appears that the tension member would perform equally well with the rounded ropes.

Response to Arguments

12. Applicants' arguments filed July 23, 1999 have been fully considered but they are not persuasive. Because elected claims are directed to a tension member per se not a tension member in combination with a sheave or any other parts of an elevator system.

Art Unit: 3652

In response to applicants' argument that neither Coleman et al nor Puzik discloses a traction or suspension rope for elevator, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. *Ex parte Masham*, 2USPQ2d 1647 (1987).

In response to applicants' argument that none of the UK 1,401,197; Pearson 1,164, 115; SU 1,216,120 or Meurer 5,149,057 discloses or suggests the use of tension members having an engagement surface that is shaped or contoured. Each of the above references separately discloses a tension member having an engagement surface which is contoured to complement the non linear engagement surface of the sheave.

In response to applicants' argument that the combination of Greening in view of Coleman does not disclose or suggest Applicants' invention as claimed in Claim 17, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge

Art Unit: 3652

generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Coleman et al disclose the used of a common coating layer to improve the tensile stress on the individual ropes.

In response to applicants' argument that a tension member having individual ropes that are flat in cross-section is an improved load distribution in both the individual ropes and the coating layer. A tension member having a plurality of ropes encased by a coating layer is well known in the art. It would have been obvious matter of design choice to have a round shaped or rectangular shaped ropes, since applicants have not disclose any significant unexpected results from using rectangular in cross-section ropes and it appears that the tension member would perform equally well with ropes having any shapes in cross-section.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. DE 2307104 A discloses a tension member including a plurality of strands ropes encapsulated in a rubber coating.

14. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


Art Unit: 3652

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thuy v. Tran whose telephone number is (703) 308-2558.

TVT (GVT)

September 20, 1999

 9/23/99
ROBERT P. OLSZEWSKI
SUPERVISORY PATENT EXAMINER
GROUP 310 3600